PNP10

COST-EFFECTIVENESS OF ATOMOXETINE IN THE TREATMENT OF ATTENTION DEFICIT HYPERACTIVITY DISORDER IN CHILDREN AND ADOLESCENTS

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OBJECTIVE: Attention deficit hyperactivity disorder (ADHD) affects 3%–5% of North Americans <18 years of age. We conducted a cost-effectiveness (CE) analysis of atomoxetine (ATO), a new non-stimulant, against methylphenidate (MTP) in ADHD. **METHODS:** Using TreeAge Data 4.0, we constructed a six-month decision analytic model. We included preference rates for non-stimulant over stimulant medication, determined by surveying parents of ADHD children. Efficacy and resource use data were determined from the literature and expert opinion. Perspectives considered were: Ontario Ministry of Health (MoH), which included direct medical costs (physician visits and drug costs); government (MoH and Ontario Ministry of Education), which included MoH costs plus costs of school-based drug administration and special education; and society, including the former costs plus non-pharmacologic interventions such as psychotherapy and over the counter supplements. Prices were obtained from standard lists and measured in 2002 Canadian dollars. Effectiveness was measured as the number of symptom free days (SFDs), defined as days of successful treatment. SFDs were assigned for the 2-week period prior to assessments of successful treatment and for each successful day remaining in the subsequent cycles. Preference rates for ATO were varied in a sensitivity analysis from 57–93% based on 95% confidence intervals of the normalized ATO rate. **RESULTS:** In the MoH base-case analysis for ATO and MTP, respectively, expected costs were $678 and $162, SFDs were 156 and 98. The incremental cost effectiveness ratio (ICER) was $8.87/additional SFD for MoH perspective, $8.83/additional SFD from the government perspective, and $2.00/additional SFD for societal. In the sensitivity analysis of preference rates, ICERs ranged from $1.12/SFD (societal) to $20.34/SFD (MoH perspective). **CONCLUSION:** We found a strong preference for non-stimulant therapy, whose incremental cost was relatively small and quite reasonable.

PNP11

MEDICAL CARE COSTS FOR TREATING ATTENTION DEFICIT/HYPERACTIVITY DISORDER—AN EMPIRICAL STUDY BASED ON A LARGE ADMINISTRATIVE CLAIM DATA

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OBJECTIVES: To examine the medical care costs paid by commercial health plans for treating attention deficit/hyperactivity disorder (ADHD) in their health plans. **METHODS:** We used a nationally representative claim data set (Pharmetrics claim database) with 23 million covered lives and 28 health plans. ADHD patients at different age groups were identified base on ICD-9 codes. The mean annual medical care costs for treating ADHD were calculated for each age group from the medical care claims that have ADHD ICD-9 codes as principal diagnosis. The medical care costs examined in this study include the costs reimbursed by commercial health plans for all outpatient services, mental health services, emergency services, and inpatient services claims with ADHD ICD-9 codes as principal diagnoses, but exclude all medication costs. **RESULTS:** More than 15,000 ADHD patients were identified from Pharmetrics data set in year 2000. The mean annual medical care costs for different age groups were calculated as follows: $221.92 for children under age 6; $257 for children age between 6 and 11; $262.71 for teen ages between 12–18; and $202.94 for adults. Using these estimates and assuming 3% prevalence of ADHD nationwide, we can extrapolate that, each year, at least more than $100 millions of medical care have been consumed for treating ADHD. **CONCLUSIONS:** In addition to medication, ADHD patients in commercial health plans also consume a significant amount of medical care for treating ADHD. This consumption imposes a financial burden to health plans. Therefore, a new therapeutic approach that can reduce this burden and has the same therapeutic efficacy should be encouraged.

PNP12

A COST CONSEQUENCE ANALYSIS OF THE MANAGEMENT OF ATTENTION-DEFICIT HYPERACTIVITY DISORDER (ADHD) IN THE UK

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OBJECTIVES: To model the treatment patterns of ADHD and to assess health economic differences between standard immediate-release methylphenidate (MPH-IR) (OD, BID or TID); a new orally administered, once-daily (OD), long-acting (LA) formulation of methylphenidate using a unique osmotic release delivery technology (MPH-OD, LA); and behavioural therapy (BEH) in the UK. The use of MPH-OD, LA minimizes fluctuations in peak-trough concentrations improving acute tolerance. **METHODS:** Based on a clinical trial by the MTA Cooperative Group, a medical decision tree was developed in MS-Excel, reflecting the current treatment strategies and associated outcomes. The profile for MPH-OD, LA was determined based on a short-term comparative double-blind cross-over trial and a 24-month open-label multi-